54.4; Tatoosh Island, 55.0; Port Angeles, 55.1; Eureka, 55.8; Fort Canby, 57.8. In Canada, Banff, 52.6; Esquimault, 56.5; St. Johns, N. F., 56.8; Calgary, 57.5; Father Point, 57.7; Edmonton, 58.1.

As compared with the normal for July, the mean temperature for the current month was in excess slightly on the California coast, but decidedly throughout the Mississippi watershed, Lake Region, northern New England, and the Maritime Provinces. It was decidedly deficient over the Rocky Mountain Plateau Region and slightly on the New England Coast. It was the coldest on record for the eastern portions of Washington and Oregon.

The greatest excesses were: In the United States, Sault Ste. Marie, 5.5; Buffalo, 4.7; Northfield, 4.5; Milwaukee, 3.8; Alpena, 3.7; Green Bay, 3.5; Topeka, 3.4. In Canada, White River, 6.5; Parry Sound, 5.6; Saugeen, 5.4; Rockliffe, 4.6. The deficits were: In the United States, Walla Walla, 4.6; Baker City, 4.4; Lander, 4.3; El Paso, 3.7; Salt Lake City, 3.6. In Canada, St. Johns, N. F., 4.2; Esquimault, 3.5; Battleford, 2.9; Edmonton and Medicine Hat, 2.8.

Considered by districts the mean temperatures of the current month show departures from the normal as given in Table I. The greatest positive departures were: Lower Lake, 2.2; Upper Lake, 3.0; Missouri Valley, 1.5. The greatest negative departures were: Southern Plateau, 2.4; Northern Plateau, 3.6.

In Canada, Prof. R. F. Stupart says:

Temperature was a little below average in British Columbia and the Northwest Territories; it was from 0° to 4° above in Manitoba, and from 3° to 7° above in the Province of Ontario. In Quebec, between Montreal and Quebec City, it was 4° above, and thence the difference diminished to about 1° above at Gaspe. In New Brunswick and Nova Scotia there was a general excess ranging between 1° and 3°.

The *years of highest and lowest mean temperatures* for July are shown in Table I of the REVIEW for July, 1894. The mean temperature for the current month was the highest on record at: Palestine, 84.4; Parkersburg, 76.5; Milwaukee, 73.2; Alpena, 69.0; Sault Ste. Marie, 67.6. It was the lowest on record at: Baker City, 62.2; Spokane, 65.2; Winnemucca, 68.1; Walla Walla, 70.6; Salt Lake City, 71.9.

The *maximum and minimum temperatures* of the current month are given in Table I. The highest maxima were: 112, Yuma (10th); 110, Fresno (11th); 107, Phœnix (30th); 106, Red Bluff (13th); 105, Walla Walla and Sacramento (11th), Abilene (26th). The lowest maxima were: 62, Tatoosh Island (13th); 67, Eureka (18th), Port Angeles (9th); 69, Fort Canby (13th); 74, Astoria (10th), 78, Block Island and Woods Hole (16th). The highest minima were: 74, Port Eads (frequently); 72, Corpus Christi (14th); 71, New Orleans (17th), Charleston (14th); 70, Key West (7th), Tampa (17th), Galveston (27th). The lowest minima were: 34, Idaho Falls (19th); 35, Winnemucca (8th); 37, Baker City (7th); 39, Carson City (8th); 40, Cheyenne (frequently); 41, Lander 18th.

The *years of highest maximum and lowest minimum temperatures* for July are given in the last four columns of Table I of the REVIEW for July, 1896. During the current month the maximum temperatures were equal to or above the highest on record at: Kansas City, 102; Sandusky, 100; Rochester and Parkersburg, 99; Alpena, 98; Cleveland, 97; Northfield and Buffalo, 95; Erie, 94; Grand Haven, 93. The minimum temperatures were equal to or below the lowest on record at: Winnemucca, 35; Santa Fe and Pueblo, 43; San Francisco, 47; Abilene, 61.

The *greatest daily range of temperature and the data for computing the extreme and mean monthly ranges* are given for each of the regular Weather Bureau stations in Table I. The largest values of the greatest daily ranges were: Fresno, 52; Idaho Falls, 50; Havre and Pueblo, 45; Cheyenne, 44; Walla Walla, Winnemucca, and Carson City, 43. The smallest values were: Tatoosh Island and Hatteras, 11; Key West, 13; Port Eads, San Diego, and Fort Canby, 15; Nantucket, 16.

Among the *extreme monthly ranges* the largest were: Idaho Falls, 62; Winnemucca, 61; Pueblo and Fresno, 58; Baker City, 56; Walla Walla and Miles City, 55. The smallest values were: Tatoosh Island, 14; Port Eads, 19; Fort Canby, San Diego, and Hatteras, 20; Key West and Eureka, 21.

Accumulated monthly departures from normal temperatures from January 1 to the end of the current month are given in the second column of the following table, and the average departures are given in the third column, for comparison with the departures of current conditions of vegetation from the normal condition.

Districts.	Accumulated departures.		Districts.	Accumulated departures.	
	Total.	Average.		Total.	Average.
	°	°		°	°
New England	+ 3.7	+ 0.5	Ohio Valley and Tenn.	— 1.1	— 0.2
Middle Atlantic	+ 0.7	+ 0.1	North Dakota	— 5.0	— 0.7
South Atlantic	+ 0.7	+ 0.1	Northern Slope	— 2.1	— 0.3
Florida Peninsula	+ 0.1	+ 0.0	Southern Slope	— 0.2	— 0.0
East Gulf	+ 1.9	+ 0.3	Southern Plateau	— 6.1	— 0.9
West Gulf	+ 6.2	+ 0.9	Middle Plateau	— 8.0	— 1.1
Lower Lake	+ 3.6	+ 0.5	North Pacific	— 1.2	— 0.2
Upper Lake	+ 9.2	+ 1.3	Middle Pacific	— 1.6	— 0.2
Upper Mississippi Valley	+ 2.6	+ 0.4	South Pacific	— 4.1	— 0.6
Missouri Valley	+ 2.1	+ 0.3			
Middle Slope	+ 2.9	+ 0.4			
Northern Plateau	+ 5.4	+ 0.8			

MOISTURE.

The *quantity of moisture* in the atmosphere at any time may be expressed by the weight of the vapor coexisting with the air contained in a cubic foot of space, or by the tension or pressure of the vapor, or by the temperature of the dew-point. The mean dew-point for each station of the Weather Bureau, as deduced from observations made at 8 a. m. and 8 p. m., daily, is given in Table I.

The *rate of evaporation* from a special surface of water on muslin at any moment determines the temperature of the wet-bulb thermometer. The mean wet-bulb temperature is now published in Table I; it is always intermediate, and generally about half way between the temperature of the air and of the dew-point. The quantity of water evaporated in a unit of time from the muslin surface may be considered as depending essentially upon the wet-bulb temperature, the dew-point, and the wind.

The *relative humidity*, or the ratio between the moisture that is present in the air and the moisture that it would contain if saturated at its observed temperature is given in Table I as deduced from the 8 a. m. and 8 p. m. observations. The general average for a whole day, or any other interval, would properly be obtained from the data given by an evaporometer, but may also be obtained, approximately, from frequent observations of the relative humidity.

PRECIPITATION.

[In inches and hundredths.]

The *distribution of precipitation* for the current month, as determined by reports from about 2,500 stations, is exhibited on Chart III. The numerical details are given in Tables I, II, and III. The total precipitation for the current month was largest, exceeding 19 inches in central and western Connecticut, and exceeding 6 inches over the greater part of New England and the Middle Atlantic coast region. It was also unusually large in Wisconsin and the Florida Peninsula. Little or no rain fell in Oregon, California, southern Idaho, Nevada, Utah, parts of Arizona and New Mexico.

The larger values for regular stations were: New Haven, 16.63; New York, 9.52; Charleston, 9.42; Kittyhawk, 9.06; Hatteras, 8.98; Buffalo, 8.29; Savannah, 8.10; Hannibal and Northfield, 8.04; Moorhead, 8.02; Atlantic City, 8.01. In Canada, Swift Current, 6.27; St. Johns, N. F., 6.09; Bermuda, 5.79; Calgary, 5.54; Banff, 5.34.

Details as to *excessive precipitation* are given in Tables XI and XII.

The *diurnal variation*, as shown by tables of hourly means of the total precipitation, deduced from the self-registering gauges kept at the regular stations of the Weather Bureau, is not now tabulated.

The *current departures* from the normal precipitation are given in Table I, which shows that precipitation was in excess over a narrow belt extending from New Hampshire and Massachusetts to Virginia, and thence westward to the Rocky Mountain Plateau. It was especially deficient in the interior of the Gulf States. The large excesses were: New Haven, 11.7; Duluth, 5.6; New York, 5.3; Buffalo, 5.1; Northfield and Hannibal, 4.9; Atlantic City, 4.6; Nashville, 4.3; Moorhead, 4.1. The large deficits were: Port Eads, 6.1; Pensacola, 4.5; Tampa, 3.6; Montgomery, 3.1; Little Rock, 3.0.

The *average departure* for each district is given in Table I. By dividing each current precipitation by its respective normal the following corresponding percentages are obtained (precipitation is in excess when the percentage of the normal exceeds 100):

Above the normal: New England, 177; middle Atlantic, 144; south Atlantic, 109; east Gulf, 142; Ohio Valley and Tennessee, 132; lower Lake, 145; upper Lake, 126; North Dakota, 128; upper Mississippi, 119; southern Slope, 111; southern Plateau, 107; middle Plateau, 138; north Pacific, 132.

Normal: northern Plateau and southern Pacific, 100.

Below the normal: Florida Peninsula, 87; west Gulf, 37; Missouri Valley, 80; northern Slope, 94; middle Slope, 96; middle Pacific, 9.

In Canada, Prof. R. F. Stupart says:

The rainfall was a little above average in British Columbia. It was very decidedly above in Alberta, where the excess was from 1 to 3 inches, but in Assiniboia and Saskatchewan, except locally, the difference from average was not great, and in some places there was a deficiency. In western Manitoba there was a small deficiency, but in the eastern part of the Province and thence throughout the Lake Region, there was a marked excess, except in the southwestern counties of Ontario, and also in a small district north of Lake Superior. In the central and more northern parts of Ontario the fall was from double to three times the average amount. In Quebec it was about average, and in the Maritime Provinces there were no marked departures from average, except in the extreme eastern portion, and near the upper part of the Bay of Fundy, where there was a deficiency.

The *total accumulated monthly departures* from January 1 to the end of the current month are given in the second column of the following table; the third column gives the percentage of the current accumulated precipitation relative to its normal value.

Districts.	Accumulated departures.	Accumulated precipitation.	Districts.	Accumulated departures.	Accumulated precipitation.
	Inches.	*Per ct.*		*Inches.*	*Per ct.*
New England	+ 1.80	107	Middle Atlantic	— 0.40	98
Florida Peninsula	+ 3.80	114	South Atlantic	— 1.70	95
Ohio Valley and Tenn.	+ 2.50	109	East Gulf	— 2.00	94
Upper Lake	+ 0.20	101	West Gulf	— 5.80	77
North Dakota	+ 0.80	106	Lower Lake	— 0.70	97
Upper Mississippi Valley.	+ 3.00	114	Missouri Valley	— 0.30	99
Middle Slope	+ 0.90	106	Northern Slope	— 1.00	90
Southern Slope	+ 2.30	119	North Pacific	— 1.50	95
Southern Plateau	+ 2.70	164	Middle Pacific	— 2.30	88
Middle Plateau	+ 0.30	108			
Northern Plateau	+ 0.30	103			
South Pacific	+ 0.80	110			

The *years of greatest and least precipitation* for July are given in the REVIEW for July, 1890. The precipitation for the current month was the greatest on record at: Buffalo, 8.29; Hannibal and Northfield, 8.04; Moorhead, 8.02; Atlantic City, 8.01; Rochester, 6.37; Nantucket, 4.32. It was the least on record at: Corpus Christi, 0.00; Pensacola, 2.19.

SNOWFALL.

The *total monthly snowfall* at each station, if any occurs, is given in Tables I and II. The chart of geographical distribution is omitted for this month.

HAIL.

The following are the dates on which hail fell in the respective States:

Alabama, 16. Arkansas, 29. California, 21. Colorado, 8, 9, 10, 14, 17, 23, 24, 26, 31. Delaware, 23, 31. Georgia, 3, 18, 21. Idaho, 1, 7, 17, 26. Illinois, 9, 12, 24, 25, 30. Indiana, 9, 10, 16, 23, 30, 31. Iowa, 2, 3, 6, 11, 22, 23, 24, 30. Kansas, 1, 3, 4, 24, 28. Kentucky, 4, 6, 7, 9, 10, 11, 17, 19, 23, 24. Maine, 23, 31. Maryland, 2, 7, 11, 12, 14, 17, 18, 19, 23, 31. Massachusetts, 31. Michigan, 17, 29, 30. Minnesota, 2, 3, 5, 6, 11, 18, 19, 29. Missouri, 10, 11, 15, 25. Montana, 6, 7, 17, 18, 22, 30. Nebraska, 5, 9, 11, 26, 27. Nevada, 16, 22, 23. New Hampshire, 6, 17, 31. New Jersey, 2, 3, 14, 22, 23. New Mexico, 1, 9, 16 to 19, 27, 28. New York, 6, 10, 11, 14, 15, 20, 22. North Carolina, 3, 14, 23. North Dakota, 3, 4, 5, 10, 14, 16, 17, 25, 31. Ohio, 5, 11, 14, 17, 19, 20, 22, 23, 24, 31. Oregon, 1, 6, 20. Pennsylvania, 1, 7, 11, 14, 17, 18, 22, 23, 30, 31. South Dakota, 3, 4, 5, 20, 29, 30. Tennessee, 16, 24, 25. Texas, 16, 17, 27, 28. Utah, 16, 21. Virginia, 7, 14, 23. Washington, 7, West Virginia, 18, 23. Wisconsin, 5, 11, 25. Wyoming, 14, 17, 19, 30.

HEAVY RAINS.

Among the remarkable rains of the month are the following items, taken from the printed reports of the respective State sections:

Indiana.—Evansville, Vanderburg County: On July 1, during a heavy thunderstorm, 4.75 inches of rain fell between 3 a. m and 8 a. m, seventy-fifth meridian time. Jeffersonville, Clark County: On the 10th, from 12:15 p. m. to 2:02, 4.74 inches of water fell during a heavy storm; a portion of it fell as large hail, between 12:18 and 12:40, doing considerable damage Liberty, Union County: On the evening of July 23, hailstones appearing as if cut from a thick, flat piece of frozen snow, and others like great chunks broken from cakes of ice.

Maryland.—Jewell, Anne Arundel County: On the 26th, from 6 p. m. to the 27th at noon, there fell 14.75 inches; the 2-inch receiver of the rain gauge was filled seven times from the overflow cylinder, and the eighth pouring gave the additional 0.75. The voluntary observer, Mr. Joseph Plummer, states that all the residents of that section agree that it was the heaviest rainfall they had ever witnessed.

New England.—The remarkable rain of the 12–14th lasted from thirty to thirty-six hours in western Connecticut and Massachusetts, and at the close of the storm it was found that from 5 to over 10 inches had fallen in many sections, exceeding previous records for any single storm; Southington, Conn., had 10.30 inches (in 33 hours); Bridgeport, Conn., had 9.39 inches; Windsor and Hartford, Conn., 9.22 and 9.17 inches, respectively, while at the mouth of the Connecticut River the measurement was nominal; farther north, through western Massachusetts and into Vermont, New Hampshire, and Maine, the amounts reached 5 and 6 inches, but along the eastern coast the precipitation was very small.

The second heaviest storm of the month came on the 22d. This had remarkable local irregularities in Connecticut, where the precipitation was the greatest. In some localities the storm resembled a cloudburst, and the consequent floods were worse than for many years. Finally, on the 29th, the third deluge occurred, accompanied by severe electrical disturbances. These storms created flood conditions in various regions, which assumed altogether colossal proportions. Several lives were lost and thousands upon thousands of dollars' worth of damage must have been done to bridges, highways, etc. On the 16th the Connecticut River at Hartford, Conn., was nearly 20 feet above low-water mark; on the 23d it was 11 feet above, and on the 30th, 19.45 above.

Wisconsin.—Butternut Station (one of the highest stations in the State), Ashland County: The voluntary observer, Mr. John J. Hayden, reports for the month 15.11 inches, out of which 10.15 fell between early morning of the 24th and some time late in the night of the 24–25th. There was no thunder with this rain.

WIND.

The *prevailing winds* for July, 1897, viz, those that were recorded most frequently, are shown in Table I for the regular Weather Bureau stations.

The *resultant winds*, as deduced from the personal observations made at 8 a. m. and 8 p. m., are given in Table VIII. These latter resultants are also shown graphically on Chart IV, where the small figure attached to each arrow shows the number of hours that this resultant prevailed, on the assumption that each of the morning and evening observations represents one hour's duration of a uniform wind of average velocity. These figures indicate the relative extent to which winds from different directions counterbalanced each other.

Maximum wind velocities are given in Table I, which also gives the altitudes of the Weather Bureau anemometers above the ground. Maxima of 50 miles or more per hour were reported during this month at regular stations of the Weather Bureau as follows (maximum velocities are averages for five minutes; extreme velocities are gusts of shorter duration, and are not given in this table):

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
		Miles				*Miles*	
Amarillo, Tex	20	52	w.	Fort Canby, Wash.	15	7	s.
Chicago, Ill	5	72	w.	Idaho Falls, Idaho	17	50	sw.
Des Moines, Iowa	23	50	nw.	Miles City, Mont	22	51	w.
El Paso, Tex	15	50	ne.	New York, N. Y	23	54	nw.
Do	20	52	ne.	Shreveport, La	17	56	s.
Do	23	60	sw.	Sioux City, Iowa	2	57	w.
Do	26	56	sw.	Woods Hole, Mass	14	52	se.

SUNSHINE AND CLOUDINESS.

The quantity of sunshine, and therefore of heat, received by the atmosphere as a whole is very nearly constant from year to year, but the proportion received by the surface of the earth depends upon the absorption by the atmosphere, and varies largely with the distribution of cloudiness. The sunshine is now recorded automatically at 22 regular stations of the Weather Bureau by its photographic, and at 40 by its thermal effects; at one of these stations records are kept by both methods. The photographic record sheets show the apparent solar time, but the thermometric records show seventy-fifth meridian time; for convenience the results are all given in Table X for each hour of local mean time. In order to complete the record of the duration of cloudiness these registers are supplemented by special personal observations of the state of the sky near the sun in the hours after sunrise and before sunset, and the cloudiness for these hours has been added as a correction to the instrumental records, whence there results a complete record of the duration of sunshine from sunrise to sunset.

The average cloudiness of the whole sky is determined by numerous personal observations at all stations during the daytime, and is given in the column "average cloudiness" in Table I; its complement, or percentage of clear sky, is given in the last column of Table X for the 61 stations at which instrumental self-registers are maintained.

COMPARISON OF DURATIONS AND AREAS.

The sunshine registers give the *durations* of effective sunshine whence the durations relative to possible sunshine are derived; the observers' personal estimates give the percentage of *area* of clear sky. These numbers have no necessary relation to each other, since stationary banks of clouds may obscure the sun without covering the sky, but when all clouds have a steady motion past the sun and are uniformly scattered over the sky, the percentages of duration and of area agree closely. For the sake of comparison, these percentages have been brought together, side by side, in the following table, from which it appears that, in general, the instrumental records of percentages of durations of sunshine are almost always larger than the observers' personal estimates of percentages of area of clear sky; the average excess for July, 1897, is 11 per cent for photographic and 13 per cent for thermometric records.

The details are shown in the accompanying table, in which the stations are arranged according to the *total possible* duration of sunshine, and not according to the *observed* duration.

Difference between instrumental and personal observations of sunshine.

Stations.	Latitude.		Apparatus.	For whole month.		Instrumental record of sunshine.			
				Total possible.	Personal.	Photographic.	Difference.	Thermometric.	Difference.
	°	′		*Hrs.*	%	%	%	%	%
Key West, Fla	24	34	T.	419.1	40	.....	.....	67	+27
Tampa, Fla	27	57	T.	424.9	52	.....	.....	55	+ 3
Galveston, Tex	29	18	P.	427.4	79	88	+ 9	.....	.....
New Orleans, La	29	58	T.	429.6	45	.....	.....	46	+ 1
Savannah, Ga	32	05	P.	434.5	48	70	+22	.....	.....
Vicksburg, Miss	32	22	T.	434.5	62	.....	.....	85	+23
San Diego, Cal	32	43	P.	437.2	81	75	− 6	.....	.....
Charleston, S. C.	32	47	T.	437.2	51	.....	.....	65	+14
Phœnix, Ariz	33	28	P.	437.2	79	87	+ 8	.....	.....
Atlanta, Ga	33	45	T.	439.7	37	.....	.....	47	+10
Los Angeles, Cal	34	03	P.	439.7	65	75	+10	.....	.....
Wilmington, N. C.	34	14	T.	439.7	42	.....	.....	52	+10
Little Rock, Ark	34	45	T.	442.0	56	.....	.....	82	+26
Chattanooga, Tenn	35	04	T.	442.0	46	.....	.....	53	+ 7
Santa Fe, N. Mex	35	41	P.	444.3	56	65	+ 9	.....	.....
Raleigh, N. C.	35	45	T.	444.3	38	.....	.....	73	+35
Nashville, Tenn	36	10	T.	444.3	55	.....	.....	69	+14
Fresno, Cal	36	43	T.	447.4	91	.....	.....	94	+ 3
Dodge City, Kans	37	45	P.	450.1	73	84	+11	.....	.....
San Francisco, Cal	37	48	T.	450.1	70	.....	.....	74	+ 4
Louisville, Ky	38	15	T.	450.1	49	.....	.....	73	+24
St. Louis, Mo	38	38	T.	453.0	60	.....	.....	81	+21
Washington, D. C	38	54	P.	453.0	50	62	+12	.....	.....
Kansas City, Mo	39	05	P.	453.0	67	76	+ 9	.....	.....
Cincinnati, Ohio	39	06	T.	453.0	61	.....	.....	75	+14
Parkersburg, W. Va	39	16	T.	453.0	.....	.....	.....	.....	.....
Baltimore, Md	39	18	T.	453.0	44	.....	.....	41	− 3
Atlantic City, N. J	39	22	P.	453.0	46	63	+17	.....	.....
Denver, Colo	39	45	P.	455.2	50	70	+20	.....	.....
Indianapolis, Ind	39	46	T.	455.2	58	.....	.....	80	+22
Philadelphia, Pa	39	57	T.	455.2	32	.....	.....	55	+23
Columbus, Ohio	39	58	T.	455.2	52	.....	.....	76	+24
Harrisburg, Pa	40	16	T.	455.2	41	.....	.....	63	+22
Pittsburg, Pa	40	32	T.	458.6	48	.....	.....	52	+ 4
New York, N. Y	40	43	T.	458.6	37	.....	.....	50	+13
Salt Lake City, Utah	40	46	P.	458.6	62	82	+20	.....	.....
Eureka, Cal	40	48	P.	458.6	61	58	− 3	.....	.....
Cheyenne, Wyo	41	08	P.	458.6	56	66	+10	.....	.....
Omaha, Nebr	41	16	P.	458.6	66	77	+11	.....	.....
Cleveland, Ohio	41	30	T.	461.8	52	.....	.....	60	+ 8
Des Moines, Iowa	41	35	T.	461.8	69	.....	.....	71	+ 2
Chicago, Ill	41	53	T.	461.8	59	.....	.....	59	0
Erie, Pa	42	07	T.	461.8	46	.....	.....	60	+14
Binghamton, N. Y	42	08	T.	461.8	37	.....	.....	52	+15
Detroit, Mich	42	20	T.	461.8	62	.....	.....	76	+14
Boston, Mass	42	21	T.	461.8	35	.....	.....	48	+13
Dubuque, Iowa	42	30	T.	461.8	69	.....	.....	73	+ 4
Albany, N. Y	42	39	T.	465.2	41	.....	.....	68	+27
Buffalo, N. Y	42	53	T.	465.2	35	.....	.....	66	+31
Rochester, N. Y	43	08	T.	465.2	47	.....	.....	52	+ 5
Idaho Falls, Idaho	43	29	T.	465.2	63	.....	.....	66	+ 3
Portland, Me	43	39	T.	468.4	31	.....	.....	45	+14
Northfield, Vt	44	10	P.	468.4	31	44	+13	.....	.....
Eastport, Me	44	54	P.	471.7	30	47	+17	.....	.....
St. Paul, Minn	44	58	P.	471.7	47	62	+15	.....	.....
Minneapolis, Minn	44	59	T.	471.7	.....	.....	.....	46	.....
Portland, Oreg	45	32	T.	475.7	66	.....	.....	69	+ 3
	45	32	P.	475.7	66	66	0	.....	.....
Helena, Mont	46	34	P.	479.6	56	66	+10	.....	.....
Bismarck, N. Dak	46	47	P.	479.6	56	58	+ 2	.....	.....
Seattle, Wash	47	38	T.	483.2	59	.....	.....	64	+ 5
Spokane, Wash	47	40	T.	483.2	55	78	+23	.....	.....

ATMOSPHERIC ELECTRICITY.

Numerical statistics relative to auroras and thunderstorms are given in Table IX, which shows the number of stations from which meteorological reports were received, and the number of such stations reporting thunderstorms (T) and auroras (A) in each State and on each day of the month, respectively.

Thunderstorms.—The dates on which the number of reports